CHANGE NCS CONFIGURATION

Identification Section:

Procedure Name: Change NCS Configuration
Applicability: Flight 1R+
Frequency: At flights 1R, 3A, 4A, 5A (pre CCS), 5A (post CCS), and 13A.
Objective: To change the Node Control Software configuration to a new baseline configuration for 1553 data busses, Remote Terminals, and application software.
Description: This procedure will change the current NCS configuration and load a new default Station Configuration PPL.
Support Required: Ground support required.
Power: Nominal MDM power
Data:
Need:
Duration: 15 minutes
Location: EPCS for part of procedure, MCC-H for all of the procedure
Parts: N/A
Materials: N/A
Tools: N/A
Constraints: One Node MDM in the Primary State. SpecIfic Constraints/Guidelines are in the Prepositioned Load Guidelines in the VDD file for the Station Config PPL.

Operational Section:

1. VERIFY HEALTH AND STATUS OF MDM

PCS Node 1: C&DH: Primary(Secondary) MDM

NODE 1: C&DH: MDM: Primary(Secondary)

√Frame Count - <Incrementing> (MDM is operational)
√MDM BIT Status - <blank> (No MDM errors)

'MDM Major State'
√STATE - Primary(Secondary) (MDM is operational)

'Configuration'
√Configuration - current configuration

NOTE

The possible NCS configurations are:
1 = Flight 2A configuration
2 = Flight 1R configuration
3 = Flight 3A configuration
4 = Flight 4A configuration
5 = Flight 5A configuration (pre CCS activation)
6 = Flight 5A configuration (post CCS activation)
7 = Flight 13A configuration

2. SEND COMMAND TO CHANGE CONFIGURATION

To change the configuration for the Primary NCS

PCS Node 1: C&DH: Primary MDM

NODE 1: C&DH: MDM: Primary

sel Configuration
cmd Prim_NCS_Sel_Config_[X] **Execute** ([X] = New config)
sel Close

NOTE

The MDM will perform a warm restart. The secondary MDM will then become the Primary MDM.

PCS Node 1: C&DH: Secondary MDM

NODE 1: C&DH: MDM: Secondary

√Frame Count - <Incrementing> (MDM is operational)
√MDM BIT Status - <blank> (No MDM errors)

'MDM Major State'
√STATE - Primary(Secondary) (MDM is operational)

'Configuration'
√Configuration - current configuration

Perform MDM transition procedure to transition Secondary MDM to Primary if required

Go to step 3

To change the configuration for the Secondary NCS

PCS Node 1: C&DH: Secondary MDM

NODE 1: C&DH: MDM: Secondary

sel Configuration
Cmd Second_NCS_Sel_Config_[X] **Execute** ([X] = New config)
sel Close

NOTE

The MDM will perform a warm restart. The secondary MDM will then become the Primary MDM.

PCS Node 1: C&DH: Secondary MDM

NODE 1: C&DH: MDM: Secondary

√Frame Count - <Incrementing> (MDM is operational)
√MDM BIT Status - <blank> (No MDM errors)

'MDM Major State'
√STATE - Primary(Secondary) (MDM is operational)

'Configuration'
√Configuration - current configuration

3. VERIFY STATUS OF THE NEW CONFIGURATION

PCS Node 1: C&DH: Primary(Secondary) MDM

NODE 1: C&DH: MDM: Primary(Secondary)

If Configuration 2 was selected
If Primary MDM
sel CB_GNC_ [X] bus [X] = 1 for N1-1 or 2 for N1-2
sel RT Status
√RT Inhibited 22,23,24 - <blank>

sel UB_EPS_N1_14 bus
sel RT Status
√RT Inhibited 18,19,20 - <blank>

sel UB_EPS_N1_23 bus
sel RT Status
√RT Inhibited 18,19,20 - <blank>

sel UB_ORB_N1_[X] bus [X] = 1 for N1-1 or 2 for N1-2
sel RT Status
√RT Inhibited 8,24 - <blank>

If Secondary MDM
sel UB_ORB_N1_[X] bus [X] = 1 for N1-1 or 2 for N1-2
sel RT Status
√RT Inhibited 8 - <blank>

If Configuration 3 was selected
If Primary MDM
sel CB_GNC_ [X] bus [X] = 1 for N1-1 or 2 for N1-2
sel RT Status
√RT Inhibited 22,23,24 - <blank>

If N1-2 MDM
sel LB_SYS_LAB_2 bus
sel RT Status
√RT Inhibited 18,19,20 - <blank>

sel UB_EPS_N1_14 bus

sel RT Status
√RT Inhibited 11,12,18,19,20 - <blank>

sel UB_EPS_N1_23 bus
sel RT Status
√RT Inhibited 11,12,18,19,20 - <blank>

sel UB_ORB_N1_[X] bus [X] = 1 for N1-1 or 2 for N1-2
sel RT Status
√RT Inhibited 8,24 - <blank>

If Secondary MDM

If N1-2 MDM
sel LB_SYS_LAB_2 bus
sel RT Status
√RT Inhibited 18,19,20 - <blank>

sel UB_ORB_N1_[X] bus [X] = 1 for N1-1 or 2 for N1-2
sel RT Status
√RT Inhibited 8 - <blank>

If Configuration 4 was selected
If Primary MDM
sel CB_GNC_ [X] bus [X] = 1 for N1-1 or 2 for N1-2
sel RT Status
√RT Inhibited 22,23,24 - <blank>

If N1-1 MDM
sel LB_SYS_LAB_1 bus
sel RT Status
√RT Inhibited 18,19,20 - <blank>

If N1-2 MDM
sel LB_SYS_LAB_2 bus
sel RT Status
√RT Inhibited 15,16,17,18,19,20 - <blank>

sel UB_EPS_N1_14 bus
sel RT Status
√RT Inhibited 11,12,18,19,20,23,28 - <blank>

sel UB_EPS_N1_23 bus
sel RT Status
√RT Inhibited 11,12,18,19,20,23,28 - <blank>

sel UB_ORB_N1_[X] bus [X] = 1 for N1-1 or 2 for N1-2

sel RT Status
√RT Inhibited 8,24 - <blank>

If Secondary MDM

If N1-1 MDM
sel LB_SYS_LAB_1 bus
sel RT Status
√RT Inhibited 18,19,20 - <blank>

If N1-2 MDM
sel LB_SYS_LAB_2 bus
sel RT Status
√RT Inhibited 18,19,20 - <blank>

sel UB_ORB_N1_[X] bus [X] = 1 for N1-1 or 2 for N1-2
sel RT Status
√RT Inhibited 8 - <blank>

If Configuration 5 was selected
If Primary MDM
sel CB_GNC_ [X] bus [X] = 1 for N1-1 or 2 for N1-2
sel RT Status
√RT Inhibited 22,23,24,27,28,29,30 - <blank>

If N1-1 MDM
sel LB_SYS_LAB_1 bus
sel RT Status
√RT Inhibited 5,9,18,19,20,21, 29,30 - <blank>

If N1-2 MDM
sel LB_SYS_LAB_2 bus
sel RT Status
√RT Inhibited 5,9,18,19,20, 29,30 - <blank>

sel UB_EPS_N1_14 bus
sel RT Status
√RT Inhibited 11,12,18,19,20,23,28 - <blank>

sel UB_EPS_N1_23 bus
sel RT Status
√RT Inhibited 11,12,18,19,20,23,28 - <blank>

sel UB_ORB_N1_[X] bus [X] = 1 for N1-1 or 2 for N1-2
sel RT Status
√RT Inhibited 8,24 - <blank>

If Secondary MDM

sel CB_GNC_ [X] bus [X] = 1 for N1-1 or 2 for N1-2
sel RT Status
√RT Inhibited 27,28,29,30 - <blank>

If N1-1 MDM
sel LB_SYS_LAB_1 bus
sel RT Status
√RT Inhibited 5,9,18,19,20,21,29,30 - <blank>

If N1-2 MDM
sel LB_SYS_LAB_2 bus
sel RT Status
√RT Inhibited 5,9,18,19,20, 29,30 - <blank>

sel UB_ORB_N1_[X] bus [X] = 1 for N1-1 or 2 for N1-2
sel RT Status
√ RT Inhibited 8 - <blank>

If Configuration 6 was selected
If Primary MDM
sel CB_GNC_ [X] bus [X] = 1 for N1-1 or 2 for N1-2
sel RT Status
√RT Inhibited 28,29,30 - <blank>

sel LB_SYS_LAB_[X] bus [X] = 1 for N1-1 or 2 for N1-2
sel RT Status
√RT Inhibited 29,30 - <blank>

sel UB_EPS_N1_14 bus
sel RT Status
√RT Inhibited 11,12,18,19,20,23,28 - <blank>

sel UB_EPS_N1_23 bus
sel RT Status
√RT Inhibited 11,12,18,19,20,23,28 - <blank>

sel UB_ORB_N1_[X] bus [X] = 1 for N1-1 or 2 for N1-2
sel RT Status
√RT Inhibited 8 - <blank>

If Secondary MDM
sel CB_GNC_ [X] bus [X] = 1 for N1-1 or 2 for N1-2
sel RT Status
√RT Inhibited 28,29,30 - <blank>

sel LB_SYS_LAB_[X] bus [X] = 1 for N1-1 or 2 for N1-2
sel RT Status
√RT Inhibited 29,30 - <blank>

sel UB_ORB_N1_[X] bus [X] = 1 for N1-1 or 2 for N1-2
sel RT Status
√RT Inhibited 8 - <blank>

4. CHANGE DEFAULT CONFIGURATION

MCC-H - Perform Early Prepositioned Load procedure using new Station Configuration PPL for both MDMs.